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ABSTRACT

This report provides a summary of the results of a three-year evaluation study of the Right to Read Special Emphasis Project, which was undertaken to determine if intensive programs of reading instruction introduced at an early age could change patterns of reading achievement in schools where large numbers of students read one or more grades below level. This summary provides the following information: (1) a brief discussion of the background and provisions of the Special Emphasis Project, (2) a description of the evaluation study, (3) a summary of process and impact findings resulting from the study, and (4) conclusions. (FL)

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Evaluation of the Right to Read Special Emphasis Project

EXECUTIVE SUMMARY

July 1980

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EVALUATION OF THE RIGHT TO READ SPECIAL EMPHASIS PROJECT

The Special Emphasis Project represented a unique experimental intervention in the teaching of reading to elementary students experiencing difficulties learning to read. The summary of the evaluation of this project is presented in the following four sections:

- The Special Emphasis Project--A brief discussion of the background and provisions of the Special Emphasis Project.
- The Evaluation of Special Emphasis--A description of the evaluation study.
- The Evaluation Findings--A summary of process and impact findings resulting from the evaluation study.
- Conclusions.

THE SPECIAL EMPHASIS PROJECT

The Right to Read Special Emphasis Project was initiated under the provisions of Public Law 93-380, Section 721, as amended by Public Law 94-194, Section 10. This legislation authorized the US Office of Education (USOE) to undertake a study to test the hypothesis that intensive programs of reading instruction introduced at an early age can change patterns of reading achievement of students in schools having large numbers of students reading one or more grades below level. The USOE originally funded eight projects in the fall of 1976 for the purpose of implementing the Special Emphasis concept. Each project was to provide for:

- The teaching of reading by reading specialists for all children in grades 1 and 2.
- The teaching of reading by reading specialists for children, in grades 3 through 6, who had reading problems.
- The provision of an intensive vacation reading program for elementary school children who were reading below the appropriate grade level or who were experiencing problems in learning to read.

In addition to these major requirements, each Special Emphasis project was to incorporate programmatic features as specified in the authorizing legislation. Among these features were:

- A diagnostic-prescriptive approach to reading instruction.
- Inservice training opportunities for project school staff.
- Parent involvement in the program.
- Cooperation with an external evaluation.

To facilitate the evaluation of the Special Emphasis Program, USOE also required each funded project to identify a "comparison" school which was comparable to the Special Emphasis project school in size, student characteristics, instructional approaches, and curriculum materials. This school was to be used as the control school in a quasi-experimental evaluation design.

Eight Special Emphasis projects were funded in 1976. Of these, six were refunded, and one new project was funded for school years 1977-78 and 1978-79. The seven Special Emphasis projects which operated in 1977-78 and 1978-79 are included in this evaluation. These projects were located in Louisiana, Michigan, Ohio, Tennessee, Texas, West Virginia, and California.

THE EVALUATION OF SPECIAL EMPHASIS

The following paragraphs describe the objectives and the limitations of the Special Emphasis evaluation.

Objectives

Concurrent with the funding of the Special Emphasis projects, the USOE awarded an evaluation contract. The contractor for this evaluation was required to conduct an evaluation of:

- The process by which the Special Emphasis programs were implemented and operated.
- The impact of the Special Emphasis projects on reading achievement, on reading attitudes and behaviors, and on local education agency (LEA) practices or policies.

The specific objectives of the process evaluation component of this study were:

- To examine the degree to which each Special Emphasis project adhered to project guidelines.
- To determine the comparability of schools and students in the Special Emphasis and comparison schools.
- To describe the Special Emphasis instructional program during both the school year and the summer session.

The process evaluation was conducted using data on instructional programs and data on student and staff characteristics. Process evaluation data used in this study were collected from all participating staff, students, and parents using questionnaires administered in the spring of each project year. In addition, evaluation contractor staff interviewed project personnel and observed reading instruction at each project school. Data were collected over a 3-year period. Data were analyzed on a site-by-site basis and across sites.

The objectives of the impact evaluation component of this study were:

- To determine the impact on reading performance of students in the Special Emphasis and comparison schools.
- To determine the impact on reading-related attitudes and behaviors of school staff, students, and parents.
- To document any residual effects of the Special Emphasis project within the participating school district and on project participants.
- To determine the differences in the retention of reading achievement between schools with, and without, summer reading programs.

The impact evaluation component of this study, based on change in student reading performance over time, was to be measured and contrasted

at the Special Emphasis and comparison schools. The measure used to assess performance was the comprehension total[1] score on the Stanford Diagnostic Reading Test (SDRT). Students were tested each fall and spring. Questionnaires and interview responses provided additional data to meet the impact evaluation objectives. Data were examined for each Special Emphasis site to determine impact for each project year and over the duration of the project.

Limitations

In conducting the evaluation of the Special Emphasis Project, several design and analysis problems were encountered. The most significant of the problems limiting the results of the study were:

- The lack of comparability between some Special Emphasis and comparison schools with respect to one or more of the following: size, student characteristics, instructional approaches, and materials.
- The lack of comparability among project sites.
- The existence of other intervention programs, such as Title I, in Special Emphasis and/or comparison schools.
- The limitations of the reading test selected for use in the study; the SDRT is a diagnostic rather than an achievement test, it uses different norming referent groups for fall and spring test administration.
- The loss of almost half of the potential observations owing to factors such as absenteeism and student turnover.
- The wide-spread presence of ceiling effects on student test scores.
- The lack of suitable comparison groups for use in the analysis of the impact of the summer programs, due to the voluntary nature of these programs.

[1] Comprehension total is a score derived from two subtests on the SDRT.

The original evaluation plan envisioned by USOE called for a study based on cross site aggregated data. However, this plan was not undertaken when wide disparities were found across project sites. Site to site differences in criteria for Special Emphasis Program participation, in actual treatment, and in student characteristics (e.g., race, socioeconomic status), existed. In view of this, it was decided to treat each project site as an independent evaluation, that is, impact was analyzed on a site-by-site basis rather than across sites. It was also determined that an analysis of summer program impact could not be undertaken due to the lack of comparison groups.

THE EVALUATION FINDINGS

Findings of the evaluation of the Special Emphasis Project are grouped under two general headings:

- Process findings
- Impact findings

Process Findings

The major findings to emerge from the analysis of descriptive data collected on Special Emphasis are summarized below.

- All project sites secured the services of reading specialists or reading teachers, whose qualifications met the USOE requirements for Special Emphasis.
- All but two of the sites served all students in grades 1 and 2; all but one of the sites provided Special Emphasis instruction to those students, in grades 3 through 6, who experienced problems in reading.
- The minimum requirement of 40 minutes per day of reading instruction was met by all but one of the sites.
- All sites conducted summer vacation school reading instruction programs.
- All sites conducted inservice training for Special Emphasis staff and classroom teachers.

- All sites established record keeping systems to track student mastery of reading skills.
- Only one site had project and comparison schools which were comparable with respect to instructional approaches, curriculum materials, size of enrollment, and student characteristics.
- None of the Special Emphasis projects was in compliance with all legislated and USOE established requirements.

The process evaluation identified three Special Emphasis projects which implemented programs that closely resembled the Special Emphasis concept and came closest to meeting the established requirements. Data from these project sites, when compared with data from the other four sites, established two program features that were common to the three.

- Reading specialists worked in a classroom teaming with the regular classroom teacher. Genuine teaming required (1) a period of adjustment to establish roles and "turf," (2) an opportunity to plan the instruction and to discuss individual student performance (i.e., a planning period), (3) guidance and coordination by the project leader, and (4) a common instructional resource. Where reading specialists were not teamed with the classroom teacher within the classroom, conferences were less frequent, annoyances more common, and little or no instructional coordination occurred.
- Inservice training was an integral element in the program. It was a key enabling mechanism when it (1) established a common instructional approach for teachers and specialists (i.e., diagnostic-prescriptive), (2) provided teachers and specialists the opportunity to discuss and resolve project related issues, and (3) provided teachers and specialists the opportunity to create curriculum components and instructional materials which met the specific needs of the project school.

A review of the data collected from each of the seven Special Emphasis sites revealed one other point of general interest. Local articulation of site-specific project objectives focused on process rather than outcome aspects of the project. Only one site expressed objectives in terms of measurable outcomes; two other sites expressed one objective as a measurable outcome.

Impact Findings

From the outset of the project, the effect of Special Emphasis on student reading performance, as measured by scores on a standardized test, was commonly regarded as the major criterion on which program impact was to be measured. However, while the evaluation of reading achievement gains was the major focus of this study, other outcomes from the Special Emphasis project were also considered. The following paragraphs discuss the results of each of the analyses performed including:

- Analysis of Change in Reading Performance for Whole Grade Cohort Groups Using Analysis of Covariance (ANCOVA).
- Analysis of Change in Reading Performance for Below Mean Cohort Groups Using ANCOVA.
- Trend Analysis of Students Reading 1 or More Years Below Grade Level.
- Attitudinal and Behavioral Change.
- Residual Effects.

Based upon the results of the process findings and onsite data collection activities and impressions, the study team anticipated that three project sites provided the greatest potential for Special Emphasis impact findings to emerge. As previously noted, these sites implemented programs that closely conformed to project regulations and guidelines. The results of the impact analysis tended to support expectations that project impact was linked with project implementation.

Project sites represent one of two implementation groups; Group I consists of the three sites with the highest qualitative point totals relative to the implementation of the Special Emphasis requirements (Louisiana, Tennessee, and Texas) and Group II consists of the remaining four project sites (Michigan, Ohio, West Virginia, and California). Table 4.46 in Volume I presents data regarding the implementation ratings for each project site on which these groupings are based.

Analysis of Change in Reading Performance for Whole Grade Cohort Groups Using ANCOVA

ANCOVA is a statistical technique used to test differences among two or more groups while controlling for initial group differences on mitigating variables. This technique was used to compare student reading performance at each grade at each Special Emphasis school and its respective comparison school. The posttest comprehension total scaled scores of each grade cohort group (those students in an individual grade who took both pre- and posttests) were adjusted by the difference in pretest comprehension total scaled scores between the Special Emphasis and comparison groups. Following this adjustment, variations in posttest scores between groups were investigated for statistical significance.

Table 1 provides a summary of instances of statistically significant differences in reading performance between Special Emphasis and comparison whole grade cohort groups.

Within Group I sites, Louisiana and Texas had significant differences for whole grade cohort groups in the analysis. At the Louisiana site, the ANCOVA performed for whole grade cohort groups revealed statistically significant differences between the Special Emphasis and the comparison groups in 1977-78 and 1978-79 at grades 2 and 5. Results favored the Special Emphasis groups in both cases. At the Texas site, the ANCOVA favored the Special Emphasis groups in 1977-78 and 1978-79 at grade 2. Tennessee, despite its adherence to programmatic regulations and guidelines, showed no significant differences between Special Emphasis and comparison groups. These two groups, however, were

poorly matched, a fact which may have influenced this finding. Isolated instances of significant differences between whole grade cohort groups were also observed in Group II sites, Michigan, and West Virginia; some favor Special Emphasis, others the comparison group.

TABLE 1

ANCOVA WHOLE GRADE COHORT GROUPS SUMMARY

GROUP I

	LOUISIANA			TENNESSEE			TEXAS		
Grade	1977-78	1978-79	1977-79	1977-78	1978-79	1977-79	1977-78	1978-79	1977-79
2	SE	SE	N/A	-	-	-	SE	SE	N/A
3	-	-	SE	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-
5	SE	SE	N/A	-	-	-	-	SE	SE
6	-	-	C	-	-	-			

GROUP II

	MICHIGAN			OHIO	WEST VIRGINIA			CALIFORNIA
Grade	1977-78	1978-79	1977-79	1977-78	1977-78	1978-79	1977-79	1978-79
2	-	-	N/A	-	-	C	N/A	-
3	-	C	-	-	-	-	-	N/A
4	-	-	-	-	C	SE	SE	-
5	-	C	-	-	C	-	C	-
6	-	N/A	N/A	-	-	-	-	-

Key: SE = Significant difference, Special Emphasis group
C = Significant difference, comparison group
- = No significant difference
N/A = Data not available

Analysis of Change in Reading Performance for Below Mean Cohort Groups Using ANCOVA

The covariance analysis for below mean cohort groups was similar to that described above except that the analytic samples were subsets of the whole grade groups. Below mean cohort groups consisted of those students who had pretest scores below the mean pretest score for their respective whole grade cohort group.

The below mean analysis attempted to investigate program impact on students for whom Special Emphasis was targeted. There are several

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hazards associated with the use of ANCOVA for below mean cohort groups (the proportion of students in Special Emphasis and comparison groups scoring below the mean are not equal in several cases, a preponderance of negative measurement error at the low end of the distribution exists).

Table 2 summarizes the ANCOVA results for below mean cohort groups.

TABLE 2

ANCOVA BELOW MEAN COHORT GROUPS SUMMARY

GROUP I

Grade	LOUISIANA		TENNESSEE		TEXAS	
	1977-78	1978-79	1977-78	1978-79	1977-78	1978-79
2	SE	SE	-	-	SE	SE
3	-	-	-	-	-	-
4	-	SE	-	-	-	-
5	-	SE	-	-	-	-
6	-	SE	-	-		

GROUP II

Grade	MICHIGAN		OHIO	WEST VIRGINIA		CALIFORNIA	
	1977-78	1978-79	1977-78	1977-78	1978-79	1977-78	1978-79
2	-	-	-	-	-	-	-
3	C	-	-	-	C	-	C
4	-	-	-	C	SE	SE	-
5	-	C	-	-	SE	-	-
6	-	-	SE	C	-	-	-

Key: SE = Significant difference, Special Emphasis group
C = Significant difference, comparison group
- = No significant difference
N/A = Data not available

Statistically significant differences between below mean cohort groups were more frequent than for whole grade cohort groups. Group I sites revealed statistically significant differences in Louisiana in 1978-79 at grades 2, 4, 5, and 6, all favoring Special Emphasis. At the Texas site, statistically significant differences in 1977-78 and 1978-79 at grade 2 were found favoring the Special Emphasis groups. Again, no significant differences were found at the Tennessee site.

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Instances of significant differences between Special Emphasis and comparison groups within sites classified as Group II were scattered among schools, grade levels, and project years.

Trend Analysis of Students Reading 1 or More Years Below Grade Level

The ANCOVA findings were based on changes in reading performance for whole grade and below mean cohort groupings. Another measure of impact on reading performance was to investigate changes in the percentage of students reading 1 or more years below grade level at Special Emphasis and comparison schools.

At each Special Emphasis and comparison school except California, the data show what appeared to be a smaller percentage of the entire student body reading 1 or more years below grade level in 1979 than in 1977. Close investigation of this phenomenon revealed that the apparent overall improvement may have been a function of sample attrition rather than program participation. Although not typical, a few cases of students moving from the more than 1 year below grade cohort group to the at grade level (or above) cohort group were observed. Decreasing percentages instead were due to students leaving the analytical sample and not being tested at a subsequent test point. In addition, incoming second grade students in all but the California Special Emphasis school performed better on the standardized test used in this study than their predecessor group. Tennessee and West Virginia represented an exception, a net decrease in the percentage of students reading 1 or more years below grade level did occur between 1977 and 1978 at the comparison schools.

The trend analysis also revealed that as cohort groups move to succeeding grade levels, increasing percentages of students perform 1 or more years below grade level. This was reflected in 74 of the 88 cohort groups observed at all Special Emphasis and comparison schools over the course of this study. This finding supports the generally held belief that student performance declines as grade levels increase, e.g., greater numbers of students fall behind as they move to higher grade levels.

Attitudinal and Behavioral Change

The impact of Special Emphasis was also measured by investigating the effect of the program upon the attitudes and behaviors of participants. Questionnaire and survey responses from teachers, students, and parents were examined for changes in reading-related attitudes and behaviors at each site and school.

As measured by teacher perceptions, student reading-related attitudes and behaviors showed continual improvement in both Special Emphasis and comparison schools. The results of surveys of students and parents regarding reading attitudes and behaviors were inconclusive.

Teacher attitudes toward Special Emphasis were also explored. Teachers at Special Emphasis schools who reported problems with the Special Emphasis program were generally concerned with an apparent overemphasis on reading to the detriment of other program areas. This concern increased over the course of the Special Emphasis project.

Residual Effects

The continuation of Special Emphasis program features and concepts after the termination of Federal funding was regarded as another measure of project impact. Interviews conducted at each project site at the conclusion of the Special Emphasis project probed the carry over of the concepts, practices, and procedures initiated under Special Emphasis to other reading programs. The greatest degree of carry over appears to have taken place in Louisiana, Ohio, Tennessee, and Texas where programmatic features of the Special Emphasis projects have been institutionalized or adapted for LEA use. It should be recalled that three of these sites ranked highest in implementing Special Emphasis. These were also the sites in which school district officials showed the greatest interest in the project. Moreover, at these sites, Special Emphasis was recognized as a unique educational intervention effort. Teachers claim that their practices will continue to reflect an

instructional approach based on skill assessment and skill building in small classroom groupings (1 to 9 students) as introduced or reinforced by the Special Emphasis program.

CONCLUSIONS

The working hypothesis of the Special Emphasis Project was that intensive programs of reading instruction introduced at an early age would effect significant improvement in patterns of reading achievement in schools having large numbers of low achieving students. The data collected and analyzed from the seven project sites for this evaluation study reveal that Special Emphasis sites themselves can be classified according to the degree to which they implemented the Special Emphasis concept and program. Of the three sites with the highest implementation ratings (Louisiana, Tennessee, and Texas), two showed evidence of impact favoring Special Emphasis student groups. The data suggest that program implementation had a determining influence on program success and consequently on student performance. Of the sites achieving lower implementation ratings (Michigan, Ohio, West Virginia, and California), significant differences between Special Emphasis and comparison student groups were scattered between the two student groups. Because it is questionable that Special Emphasis was in fact operationalized at these four sites, the few instances of impact favoring Special Emphasis groups cannot be construed as evidence of program success.

Highly operationalized Special Emphasis programs had two program features in common. Reading specialists worked in the classroom teaming with the regular classroom teacher and inservice training programs attempted to integrate and reinforce a diagnostic-prescriptive approach to reading instruction.

Sites which exhibited the greatest degree of carry over of Special Emphasis concepts and practices when Federal project funds terminated were those with the highest implementation ratings. The greatest degree of carry over was experienced at the classroom level. Key factors associated with the integration or adaptation of Special Emphasis program

features at individual project sites were: an interest and participation by the local education agency in the project, recognition of Special Emphasis as a unique intervention effort, and a sense of accomplishment and involvement on the part of teachers and reading specialists in the project.

In summary, those sites which (1) most closely followed the program guidelines, (2) teamed the reading specialist in the classroom with the regular classroom teacher and, (3) developed a high degree of staff participation in the program through inservice training, experienced the greatest impact on student reading scores. Practical experimental problems including the confounding influence of other programs, lack of comparability between treatment and comparison schools, and the lack of precision of the measurement instrument may mask the true efficacy of the Special Emphasis concept.